UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

August 7, 2000

James Shafer, Remedial Project Manager
U.S. Department of the Navy
Naval Facilities Engineering Command
Northern Division
10 Industrial Highway
Code 1823, Mail Stop 82
Lester, PA 19113-2090

Re: Review of the Human Health Risk Assessment Exposure Parameter Tables for the Old Fire Fighting Training Area at the Naval Station Newport, Rhode Island

Dear Mr. Shafer:

I am writing in response to your request for EPA to review the Human Health Risk Assessment Exposure Parameter Tables for the Old Fire Fighting Training Area. The exposure parameter tables were reviewed for compliance with agreements made at the January 1999 scoping meeting, EPA Region 1 risk assessment guidance and general EPA risk assessment guidance. It is understood that the exposure parameters are intended to generate the Reasonable Maximum Exposure (RME) for the residential scenario. Detailed comments are provided in Attachment A.

In general, the exposure parameters presented in Tables 1 through 32 are acceptable. The exposure parameters selected are in compliance with agreements made at the January 1999 meeting, EPA Region 1 risk assessment guidance and general EPA risk assessment guidance and are appropriate for the Reasonable Maximum Exposure (RME). The proposal to evaluate subsurface soil and surface separately for several of the scenarios is acceptable. Any discrepancies are noted below

While I understand that the 150 days per year residential exposure frequency recommended for the OFFTA was derived using a default value taken from EPA Region I's Risk updates, that value was intended for sites in northern New England where the winters are much more harsh than in Newport RI. The number in EPA's Risk Update is based on 30 weeks exposure (5 days per week) to outside soil. A residential exposure frequency of 150 days per year appears to be an underestimate for OFFTA as it is on the coast and rarely snow-covered for 22 weeks Please evaluate whether a higher exposure frequency may be more technically appropriate

Table 14 presents the scenario for residential children (aged 0-6 years) exposed to sediment via ingestion. The sediment ingestion rate used (50 mg/day) is consistent with the sediment ingestion rate used for the child shoreline visitor scenario This sediment ingestion rate was agreed upon at the January 1999 meeting.

However, Table 16 presents the scenario for residential adults exposed to sediment via ingestion. A sediment ingestion rate of 100 mg/day was used for this scenario. This ingestion rate is not consistent with the sediment ingestion rate agreed upon and used for the adult shoreline visitor. The sediment ingestion used in Table 16 is actually a residential soil ingestion rate.

Either both of these scenarios should use the sediment ingestion rates agreed upon in January 1999 for the shoreline visitor scenario or both scenarios should use residential soil ingestion rates. Using residential soil ingestion rates would change the child's sediment ingestion rate to 200 mg/day.

I look forward to working with you and the Rhode Island Department of Environmental Management toward the cleanup of the Old Fire Fighting Training Area. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,

Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Paul Kulpa, RIDEM, Providence, RI
Melissa Griffin, NETC, Newport, RI
Jennifer Stump, Gannet Fleming, Harrisburg, PA
Diane Baxter, Tetra Tech-NUS, Wilmington, MA
Mary Philcox, URI, Portsmouth, RI
David Egan, TAG recipient, East Greenwich, RI

ATTACHMENT A

Page	Comment
Table 12	The Soil-to-Skin Adherence Factor (SSAF) is presented as 0.07 mg/cm/event with a reference to the EPA Region 1 Dermal Risk Assessment guidance document. However, Table 6-5 of the 1999 document indicates that this SSAF value was obtained via oral guidance from EPA Region 1. The Dermal Guidance recommends a SSAF of 0.08 mg/cm/event The SSAF value and reference should be corrected as necessary.
Table 14	The reference for the Exposure Duration is listed as "EPA, 1997." It is believed that the correct reference should be "Ages 0-6."
Table 15	This is a new scenario for residential children (aged 0-6years) exposed to sediment via dermal absorption. The Exposure Duration value and reference are missing from the table. It is assumed the correct value is 6 years.
Table 22	The Soil-to-Skin Adherence Factor (SSAF) is presented as 0.07 mg/cm/event with a reference to the EPA Region 1 Dermal Risk Assessment guidance document. However, Table 6-5 of the 1999 document indicates that this SSAF value was obtained via oral guidance from EPA Region 1. The Dermal Guidance recommends a SSAF of 0.08 mg/cm/event. The SSAF value and reference should be corrected as necessary.
Table 25	This commercial/industrial worker scenario was originally presented in the Draft Final HHRA (TRC, 1994) and has been revised to update exposure parameters and incorporate new data. The Soil-to-Skin Adherence Factor (SSAF) is presented as 0.07 mg/cm/event with a reference to the EPA Region 1 Dermal Risk Assessment guidance document. However, Table 6-5 of the 1999 document indicates that this SSAF value was obtained via oral guidance from EPA Region 1. The Dermal Guidance recommends a SSAF of 0.08 mg/cm/event. The SSAF value and reference should be corrected as necessary.
Table 28	This excavation worker scenario was originally presented in the Draft Final HHRA (TRC, 1994) and has been revised to update exposure parameters and incorporate new data.

The Soil-to-Skin Adherence Factor (SSAF) is presented as 0.07 mg/cm/event with a reference to the EPA Region 1 Dermal Risk Assessment guidance document. However, Table 6-5 of the 1999 document indicates that this SSAF value was obtained via oral guidance from EPA Region 1. The Dermal Guidance recommends a SSAF of 0.08 mg/cm/event. The SSAF value and reference should be corrected as necessary.

Table 30

This recreational scenario was originally presented in the Draft Final HHRA (TRC, 1994) and has been revised to update exposure parameters and incorporate new data. The scenario evaluates a child's exposure via ingestion of clams.

The body weight value used in this table is not consistent with the body weight value used for the child (aged 0-6) in Tables 14 and 15. Please use a consistent body weight for all child receptors aged 0-6 years.

Table 31

This recreational scenario was originally presented in the Draft Final HHRA (TRC, 1994) and has been revised to update exposure parameters and incorporate new data. The scenario evaluates an adult's exposure via ingestion of clams.

The exposure duration value used in this table (30 years) is not consistent with the exposure duration used for other adult scenarios (24 years). Please use a consistent exposure duration for the adult receptors.

Table 32

This recreational scenario was originally presented in the Draft Final HHRA (TRC, 1994) and has been revised to update exposure parameters and incorporate new data. The scenario evaluates a subsistent fisherman's exposure via ingestion of clams.

There is no reference provided for the exposure duration value of 30 years Is this the expected duration of the fisherman's career and consequent clam ingestion? Please provide a reference for the exposure duration value.